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MARKET REFORM AND TANZANIAN AGRICULTURE: SUCCESSES AND FAILURES IN A DECADE OF LIBERALIZATION

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This paper reviews the history of Tanzanian agricultural marketing policy prior to the initiation of reforms in 1984, then discusses the reforms under the headings of cooperatives, foodcrop sector marketing, traditional export sector marketing, and incentive effects of consumer goods supply.

Tanzania was celebrated (or notorious) in the 1970s for its policy of moving farmers into villages in which collective production and service provision were encouraged. Its general economic and specifically agricultural crisis during the 1980's had little to do with villagization or collective production, however, but were more a function of pricing and marketing policies that resembled those of other interventionist African states. In particular, the government tried to monopolize the purchasing of both key food crops and traditional export crops at relatively low and territorially uniform prices. The production disincentives due to low prices and unreliable procurement and payment led to a massive decline of official marketing of food crops, and to an end to the growth of the volume of agricultural exports. Inefficiency of the state (parastatal) marketing bodies also helped to create a crisis in the state banking system, while reduced domestic food purchases necessitated a costly increase in imports.

Institutional reform began in 1984 with the creation or revival of regional marketing cooperative unions. The cooperative nature of the unions was questionable since their managements were basically selected by the government, and the primary cooperatives which in theory they represented were none other than villages, in which membership was compulsory and no share capital was contributed. The unions thus formed an additional level in the parastatal marketing chain, duplicating marketing board transportation and storage facilities and increasing neither competition nor efficiency. A new stage of cooperative reform, in which genuine member based primary cooperatives were to be formed as the basis for democratically restructured unions, began slowly in 1991. By that time, however, the cooperatives were fighting for survival in the wake of a shift to more stringent credit standards imposed by the public banks at government's instruction.

Marketing reform was most thorough going in the food crop sector, where low purchase levels and massive debts incurred by the National Milling Company led to gradual legalization of private trade. While some growth of output occurred in the late 1980's, output stabilized at levels only moderately higher than those of the N.M.C. period, if the latter include estimated parallel market sales. Moreover, output growth was threatened by removal of subsidies in fertilizer and seed distribution sectors.

Liberalization was thought to be changing the regional pattern of production, and producers in areas with better access to markets were more likely to be satisfied with the change.

The export crop sector continued to be dominated by the state crop authorities, with only minor institutional adjustments during the period in question. Cooperative unions became purchasing agents for the authorities after 1984, but the unions' financial distress complicated this arrangement in the 1990's. An attempt to reverse the formal relationship and make the authorities selling agents for the cooperatives had little real effect. An attempt to replace fixed with indicative prices also had dubious results. Legislation to introduce multi-channel marketing in the sector finally emerged in 1993.

Market Reform and Tanzanian Agriculture:
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Tanzania's experiment with a home-grown brand of African rural socialism, ujamaa *vijijini*, generated a large scholarly literature.² It is by now well known that the grass-roots socialist strains of former President Julius Nyerere's 1960s writings came to be eclipsed by forced "villagization" of the peasantry and by the disbanding of independent cooperative associations, including both the Ruvuma Development Association, grouping *ujamaa* villages, and the once-powerful cooperative marketing unions, in favor of a monolithic Party-controlled structure of village councils and state-run crop authorities. It is also well known that state monopoly in agricultural marketing and input supply, coupled with an import substitution industrialization strategy that was heavily dependent upon imported capital goods and energy, helped bring the Tanzanian economy to the brink of collapse by the early 1980s.³

1. This paper is the result of a research project on "Institutional Renewal in Rural Tanzania" which was funded by the Institutional Reform and the Informal Sector (IRIS) program at the University of Maryland, support of which is gratefully acknowledged. I would like to thank Dr. Enos Bukuku for hosting and Brown University's Institute for International Studies and Center for the Comparative Study of Development for funding my visit to Tanzania in August 1991; Mr. Oswald Mashindano for research assistance throughout the IRIS project; and the Economic Research Bureau of the University of Dar es Salaam, including Dr. Robert Mabele, Dr. Wilbald Maro, and Dr. Joseph Semboja, for its general support. Finally, thanks are due to Albert Ngondo, George Olesh, and Jan Nyhoff of the Marketing Development Bureau, Ministry of Agriculture, for providing data on recent agricultural production and prices, and to Ian McKenney for computational and Andrew Baker for other research assistance.

2. Probably the best overview of this era is that by Coulson (1982). Other notable works include Hyden (1980), Boesen *et al.* (1977), and Von Freyhold (1979). The present author published a series of several papers on the subject culminating in a book (Putterman, 1986).

3. A useful and concise account of the crisis and policy responses to which it led is given by Bryceson (1993).

In the meantime, unfavorable world market prices, rising input costs, and serious quality problems plagued the sector.

In sum, the government's reform efforts have been most successful in limiting the accumulation of debt by public institutions and in restricting public involvement in food crop marketing, while they have been much less successful in spurring growth of output or raising producers' incentives. Willingness to reduce state involvement has been greatest in the areas of the most massive debt and crisis, and where the government's foreign donors have been most insistent. By mid-1993, however, liberalization appeared to be spreading to all major subsectors, including export crops, cooperatives, and input supply. Yet state withdrawal by itself is unlikely to lead to an invigorated agriculture; rather, liberalization with respect to marketing institutions needs to be matched by strengthening of the public sector role in transportation, research and extension, and marketing infrastructure. Facilitation of food crop exports may also be a requirement for stronger agricultural growth.

Since the mid-1980s, Tanzania's government, while still under the control of the party founded by Nyerere, ***Chama Cha Mapinduzi (CCM)***⁴, has taken a series of steps to reform the economic structure including the key institutions in the agricultural marketing and input supply sectors. This article attempts to provide an overview of those Tanzanian reforms affecting agriculture, with a focus on their institutional dimensions and on their success or failure at effecting a revival of smallholder agriculture. The first section reviews the background of agricultural policies and performance before the early 1980s. The second looks at the first phase of reform, the creation or revival of regional cooperative unions. The third section looks at the ending of the state monopoly in food crop procurement, and the overall liberalization of the food crop marketing sector. The far more hesitant steps to reform the institutions for the marketing of traditional export crops are the subject of section four. **Section five** discusses the effects of an improved supply of consumer and other goods on farmers' production and marketing incentives. A final section concludes the paper.

1. Background to Reform

Before independence in 1961, Tanganyika presented a story of relative success with respect to the development of commercial smallholder agriculture. In contrast to neighboring Kenya, where the colonial authorities saw to it that commercial farming was the preserve of **European** settlers, the country experienced an early and vigorous flowering of African smallholder production of its leading exports, cotton and coffee, and the formation of economically successful member-based marketing cooperatives in the main areas where those crops were grown. By independence, smallholder production of tea, tobacco, and pyrethrum was also gaining ground, as were exports of

4. Swahili for Revolutionary Party, the successor to Nyerere's Tanganyika African National Union (TANU) following its 1970s merger with its Zanzibar counterpart.

African-grown cashew nuts. During the decade that followed and under government auspices, cooperatives were promoted throughout the Country and became the principal buyers of both export and food crops.

At the aggregate level, at least, Tanzania's early export crop growth did not come at the expense of its capacity to feed itself. In the decade beginning with the 1961/62 season, estimated production of maize, paddy, and wheat fluctuated with a generally favorable trend (see Figure 1), and the country ran a small surplus in international transactions in **grain**.⁵ After a government board became the official bulk purchasing body (see below), the volume of maize purchases fluctuated without trend between 1963/4 and 1972/3, while rice and wheat purchases roughly doubled (see Figure 2).⁶ During roughly the same period, production of the major cash crops,⁷ except sisal, a plantation-grown fiber crop facing stiff competition from natural and synthetic substitutes, showed strong rising trends (see Figure 3). Data presented by **Coulson** indicate that between 1960-62 and 1971-73, coffee production rose from 23,600 to 48,715 tons, cotton production rose from 33,500 tons to 71,276 tons, cashew nut output rose from 45,100 tons to 121,750 tons, tobacco production rose from 2,200 to 13,577 tons, and tea output rose from 4,000 to 11,582 **tons**.⁸ The corresponding

5. A comprehensive examination of Tanzanian food self-sufficiency would require consideration of such important alternative staples as **cassava** and bananas. Owing to their **greater** role in inter-regional and international trade, **and** to the superior availability of data, our discussion is restricted to the so-called "preferred staples." On the 1960s trade balance, see Bryceson, 1993, p. 220.

6. Bryceson, 1990, p. 164. Rice purchases rose **from** 24,516 tons in 1964/5 to 47,500 tons in 1972/3 while wheat purchases rose from 29,000 tons in 1965/6 to 53,900 tons in 1972/3. Maize purchases amounted to 108,890 tons in 1963/4 and to 106,400 tons in 1972/3, with a high of 186,400 tons and a low of 43,000 tons in the intervening years. Data points for years beginning 1971/72 in Figure 2 are as given in Marketing Development Bureau, 1992, and vary slightly from those reported by Bryceson.

7. In the Tanzanian context, the terms "**cash** crops" and "export crops" are used interchangeably for the **export-oriented** crops not directly **consumed** by **farmers** themselves.

8. See Coulson, 1982, pp. 145 and 190. Although tea is largely estate grown, the sector includes some smallholders whose output was also growing during this period. Note that most of the growth in coffee and cotton production took place before 1967,

annual growth rates are 6.8, 7.1, 9.4, 18.0, and 10.1%, respectively. As Figure 4 shows, world market prices for Tanzania's main smallholder-produced export crops were relatively stable in real terms during this period. The combined value of coffee, cotton, and cashew nut exports accounted for around a third to two fifths of the country's total export revenues in this period (see Figure 6).

In the history of Tanzanian agriculture and its crisis in the late 1970s and '80s, the trend towards state monopoly in the sphere of crop purchasing has a central role. Under German and British colonial rule, agricultural trade was at first dominated by traders of Asian origin. Established by the African growers, cooperatives such as the Victoria Federation of Cooperative Unions (cotton) and the Kilimanjaro Native Cooperative Union (KNCU) were seen as a means of countering the lowering of producers' profit margins by these traders, but they made little inroad into the food crop sector. Free trade in food crops was eventually constrained, though, with producer price controls being introduced in 1942 and a Grain Storage Department being created in 1949 as the sole legal purchaser of grain in quantities of over 3 tons. Grain marketing was decontrolled in 1957, but two years after independence a National Agricultural Products Board was established and charged with purchasing maize, rice, wheat, cashew nuts and oilseeds, with local cooperative societies, rather than private traders, being its main purchasing agents.

State intervention in the purchasing of both food staples and export crops was moderated during the remainder of the 1960s and the early 1970s because the cooperatives which purchased the crops from farmers retained a measure of autonomy, including the ability to offer differing prices depending on local conditions. In the

while cashew, tobacco, and tea production registered strong growth through the early 1970s. Pyrethrum, for which earlier output figures were not obtained, shows declining output after 1966/7.

early 1970s, however, the government began moving peasants in less densely settled parts of the country from dispersed homesteads into larger development villages. Upon completion of this “villagization” exercise in 1976, the existing marketing cooperatives were deregistered by the government. The villages themselves were now to act as multi-purpose primary cooperatives, purchasing crops from their residents and selling them to the concerned parastatals. The National Milling Company (N.M.C.) was charged with purchasing grain from villages throughout the country at a unified producer price, regardless of transportation costs, and of selling milled flour to consumers in the major towns at what, with escalating operating costs, became increasingly subsidized prices. Separate **parastatal** bodies took responsibility for delivering to villages the required inputs and taking from them their output of coffee, cotton, tobacco, pyrethrum, and cashew nuts, with each such organization also being entrusted with the jobs of transporting, storing, processing, and arranging for export of their product.

The replacement of private and cooperative commerce by public agencies in the late 1970s was hardly limited to crop procurement. Regional trading and transport companies were established, and an attempt was made to replace small private traders with village-owned shops. If the inefficiency of the public trading bodies was debatable before 1979, their inability to carry out the functions assigned to them became glaring when, in the latter year, the government had to ration fuel and conscript vehicles to help in its war with Iddi **Amin's** Uganda. As a result of low official **prices**,⁹ late payments, and unreliability of crop pick-ups, farmers in many parts of the country stopped offering their food crops to the N.M.C., or offered only as much as was necessary to avoid harrassment by village authorities. The volume of

9. Bryceson's data (1993, p. 232) show the real producer price of maize falling from 53% of its 1963 value, in 1976, to 31% of that value, in 1981.

maize purchased by the N.M.C. fell from 220,400 tons in 1978/79 to 104,600 tons in 1980/81 and to 71,000 tons in 1983/84 (Figure 2).¹⁰ Reliable figures for total production do not exist, but the best estimates suggest that the decline in official sales were not associated with any reduction in output (see Figure 1), consistent with suggestions that it was matched by a rise in parallel market activity.¹¹

Whereas food crop production was largely determined by peasants' subsistence needs and parallel (illegal) trading in surpluses was widespread, cash crop producers were often unable to find an alternative to the official buyer.¹² Although cotton, coffee, and tea each experienced a strong price increase on world markets during the mid- to late-1970s (Figure 4), Tanzania's production responded in only a limited way to these opportunities (Figure 3). The early 1970s had been a period of relative stagnation for smallholder export crop production.¹³ The period between 1976/7 and 1985/6, however, saw cotton production decline from 65,930 to 32,846 tons, cashew nut production fall from 97,626 to 25,773 tons, tobacco production drop from 18,822 to 15,040 tons, and pyrethrum output fall from 3,251 to 1,351 tons.¹⁴ The corresponding annual growth rates are -7.4, -13.8, -2.5, and -9.3%, respectively. Coffee production showed no response to the crop's world market price boom until that

10. Bryceson, 1993, Table IV.1, p. 233.

11. For example, while official purchases of maize declined by 27 % between 1978/79 and 1979/80 and by 35% between the latter season and 1980/81 (Bryceson, 1990, p. 165), estimated output was quite stable between 1978/79 and 1982/83 (Marketing Development Bureau, 1992, p. 13). The parallel market is discussed by Keeler et al., 1982, and by other sources reviewed by Bryceson, 1993, pp. 94-99.

12. There were undoubtedly some exceptions in areas close to national borders--e.g., coffee production in Kilimanjaro Region, a nonnegligible share of which must have illegally found its way into Kenya.

13. Comparing average output in the 1971/2 and 1972/3 seasons and that in the 1976/7 and 1977/8 seasons, it can be seen that while tea and tobacco output grew, production of coffee and cotton, two more important smallholder crops, was relatively constant. Output of cashews and pyrethrum fell significantly during this time. See Coulson, 1982, p. 190.

14. See Bevan et al., p. 185. Cotton seed output is converted to cotton lint equivalent at a rate of 2.941: 1 which is derived from Marketing Development Bureau data.

boom was almost exhausted in 1980/81. Although output rose slightly between 1976/77 to 1985/86, the trend between the mid-1970s and the mid-1980s as a whole was essentially flat.¹⁵ The combination of declining production and falling world prices, beginning in 1977, meant **declining** export revenues from the leading smallholder crops (Figure 5). Yet the simultaneous decline in sisal and other export earnings meant that coffee, cotton, and cashew nuts alone accounted for as much as sixty percent of the country's export revenues in 1977 and 1984, with a drop to less than 40 % only once during the period (Figure 6).

By and large, the real return to cash crop production was falling, due to increasing overvaluation of the Tanzanian shilling and a growing share of receipts devoted to transport, storage, and processing. Rather than resort to parallel markets, most producers simply reduced their expenditure of effort on these crops. In a study of the Tanzanian procurement systems, Ellis (1983) found that the proportion of the world price of the six leading export crops going to the producer, when the latter is converted at the *official* exchange rate, fell steadily from 70.3% in 1970 to 41.7% in 1980.¹⁶ The gap between parallel market and official exchange rates, which reportedly stood in a ratio of 1.5:1 in 1970 and grew to 3.2:1 in 1980 and to 10.1:1 in 1985, implies a substantially lower and even more rapidly declining producers' share of the world market price.¹⁷ Rather than resort to parallel markets, most producers simply reduced their expenditure of effort on these crops. Thus the upward trend in the production of export crops gave way to 1970s stagnation and 1980s decline (Figure 3).

15. *Loc. cit.* Bevan *et al.*, who provide an extensive comparison of responses to the coffee boom in Tanzania and in neighboring Kenya, blame the negligible long-term response in Tanzania on rationing of manufactured goods in rural areas (see below). Another comparison of Tanzanian and Kenyan agriculture is provided by Lofchie, 1989.

16. See also Ellis, 1982.

17. Lofchie, 1989, p. 135.

A pervasive sense of agricultural crisis led to the reconsideration of policies on a number of fronts. Official purchase prices were raised to keep pace with inflation, and beginning in the 1981/82 season, gram purchase prices were differentiated, with a premium reaching 95% of the standard maize price being offered in 1987/88 in areas of **perceived comparative advantage** in production.¹⁸ By 1985/86, the producer's share of world market value of cotton, coffee, tobacco and tea **exceeded** 100% at the official exchange rate.¹⁹ With respect to institutions, however, the first major development suggesting a change in the direction of government policy was the return of cooperative unions to the marketing arena in 1984. Our discussion of the reform period begins here.

2. Reviving Cooperatives: Change without Reform

In 1980, the government appointed a task force to consider the revival of cooperative unions, and the Prime Minister announced the decision to revive the unions in 1981.²⁰ Legislation was passed in 1982, but the revived cooperatives began operating only in the 1984/85 agricultural season. Usually one union but in a few cases two unions were established in each of mainland Tanzania's twenty regions, marking **the first hesitant step in a long, initially slow, process of market liberalization.**

While the decision to revive the regional cooperative societies came out of recognition that parastatal control of crop procurement was failing, the societies created in 1984 turned out to be effectively public entities that did little to enhance efficiency

18. Marketing Development Bureau, 1989, p. 24.

19. Marketing Development Bureau, 1990, p. 26, except for the analysis for tea, which is based on internal M.D.B. data.

20. Bryceson, 1993 p. 79.

and that in some cases simply added to costs by creating an additional link in the public marketing chain. Nominally, the unions belonged to the primary societies at village levels, and they in turn were member organizations of the Cooperative Union of Tanzania (C.U.T.). However, the primary societies could not be considered cooperatives, by international standards, since membership was automatic for all adult village residents, and there was no share capital. The unions were financed not by their constituent societies but by grants and loans from the government, including the “return” of assets that had once belonged to independent cooperative unions and were subsequently appropriated by state marketing bodies. Unions’ managers were appointed by government, and government charged the unions with supplying inputs to and purchasing crops from farmers at prices it **fixed**. Although attempts were made to assess the unions’ costs and to include appropriate margins in the prices at which they in turn sold to the government marketing **authorities**, the unions tried to fulfill their charge whether a particular transaction was profitable or not. When unions incurred **losses through a combination of internal inefficiencies** and unreasonable government demands, the government ordered its banks to tide them over with credit. The political rather than commercial nature of the unions is made clear by these **factors**.²¹

Well supplied with official credit, the unions participated in the restoration of a major revival of formal channel marketing in the **late** 1980s (see Figure 2).²² Like the N.M.C., the unions were required to purchase at prices determined by the government. The noncommercial nature of the union’s operating environment was illustrated by the restoration, in the **1988/89** season, of pan-territorial pricing, under which each crop was to be purchased from any primary society which offered it to its

21. For a more detailed analysis, see Co-operative College/Afro-Aid, 1990.

22. Note that most government maize purchases in the figure represent repurchases by the N.M.C. of grain purchased from farmers by the cooperatives. The cooperative share of wheat and rice purchases was smaller since large-scale farms, which represented a larger proportion of sales, sold directly to the government.

regional union at a uniform price throughout Tanzania. Such uniform prices violated the principle of least-cost supply under conditions in which costs of transportation were high and growing ever higher due to neglect of road maintenance, absence of vehicle spare parts, and rising costs of imported fuel. Even within a given region, the cost of procuring crops from different villages could vary enormously depending on distance from the regional center, terrain, road condition, and season.

During the 1980s, proponents of restoring truly independent cooperatives, and defenders of the existing, nominal reforms, repeatedly quarreled over the nature of the cooperative system. Advocates of independent cooperatives, including faculty of the Cooperative College in Moshi and elements of the international donor community, argued that only economically viable primary societies should be registered, with voluntary membership and individual capital subscriptions. If a given village lacked sufficient surplus producers to support a society, interested farmers could join members of neighboring villages to form a common society. Societies could also be specialized to particular crops. Defenders of the status quo wanted to preserve the principle that each village would serve as a multi-purpose cooperative society, in the spirit of the 1975 Villages and Ujamaa Villages Act and of Nyerere's broader rural development vision. The country experienced a half-decade of political schizophrenia in the late 1980s following Nyerere's retirement from the presidency but continued holding of the Party chairmanship. Conservatives continued to defend the one-village one-society principle, and the idea that the societies would gradually become the country's main agricultural *production* units, propounded by Nyerere two decades earlier, was again touted as official policy in the "Program of C.C.M. for 1987 to 2002" (C.C.M., 1988).

Pressure to reform the structure of the revived cooperatives came from two quarters. On the one hand, international donors who had long supported Tanzania's cooperatives, and especially the Nordic countries, began withdrawing their support and indicating that it could be revived only after Tanzania returned to international cooperative principles. On the other hand, the so-called cooperatives shared with other public bodies the fact that they were heavily indebted to the public banking system. While pressure from donors and internal cooperative advocates were probably behind the decision by the second Mwinyi government to pass a new Cooperative Act and to install a reformist leader from the Cooperative College as Commissioner for Cooperatives in 1991, it was efforts to erase the massive debts from the books of these banks, which began in earnest around 1990, that brought the unions to their knees.

On paper, the new Act met the requirements of international donors. Primary cooperative societies were to be voluntary, member-formed organizations that did not need to be based upon state-sponsored villages, and that could be specialized in functions. Primary societies could form unions as they wished, and could also sell directly to private traders. Unions would be commercial entities and would not be subject to government interference, and the government would not press banks to make loans to nonviable unions. To implement the Act, officers of the Cooperatives Department of the Ministry of Agriculture (formally, the Ministry of Agriculture, Livestock Development and Cooperatives) and of the existing unions began a member education drive in 1991. Existing primary societies were deregistered and new societies began to be registered on a voluntary membership basis. In the spirit of the Act, the Unions dissociated themselves in early 1993 from the government-sponsored C.U.T. Unions were to hold general meetings and be reconstituted or wound up as soon as constituent primary societies were in place.

In practice, however, existing union managements continued to control entities that had changed little but for a drastic decline in activity due to the drying up of credit. The government's order to the banks to withhold credit from any union found to be unworthy of it on conventional commercial criteria created a severe crisis for the cooperative unions. If the unions were held responsible for **all** of their past debts, it is unlikely that any of them could continue to operate. **The** situation was complicated, however, by the fact that the government recognized its responsibility for an **undetermined portion of these debts. Until inquiries into the apportioning of union** debts between government and the unions could be completed, banks limited their financing to specific activities assured of an immediate return, at the same time tightening their credit requirements. In particular, the banks advanced funds with which to purchase crops only after their representatives were taken to society depots at union expense and shown physical evidence of the crop to be purchased. This made it impossible for the unions to continue the practice of advancing inputs to growers on a credit basis. The system's cumbersomeness also contributed to the exit of the unions from the food crop sector, where other buyers were often readily available, but where a bulk buyer from the union might be difficult to find (see below).

If the unions had not enhanced efficiency since their inception, more favorable official prices meant that they had nonetheless presided over strong growth in the volume of official grain purchases. Estimates by the Marketing Development Bureau (1989, p. 25) in Tanzania's Ministry of Agriculture show official maize and paddy prices reaching parity with open market producer prices at harvest **peaks** in 1985, 1986, and 1987. The unions were also providing substantial supplies of fertilizer and other inputs to key producing regions. By 1989, however, formal channel maize purchases had begun another decline (Figure 2), and by 1993, a more general decline in union activities was evident in those areas in which food crops were an important part of the

union's business. For example, I was told that the Njombe-Ludewa-Makete Cooperative Union (NJOLUMA) covering **three** districts of Iringa region used to do 90% of its business in the area of maize purchasing, and that whereas 40,000 tons of maize were sold to the cooperative in a typical year in the late **1980s**, the figure had fallen to 10,000 tons by **1992/93**. By September, 1993, **NJOLUMA's** staff had been reduced from 123 to 86 employees and it was aiming for a long-term level of 40 or 50. Some assets had also been sold to pay off debts. The **Iringa-Mufindi** Cooperative Union (**IMUCU**), in the other half of the same region, also dealt primarily with food crops and was reducing its staff from 86 in early 1992 to about 30 at the end of 1993. **IMUCU's** survival strategy involved purchasing limited quantities of gram for sale to the government's Strategic Gram Reserve and to some state-owned companies like the **Kilombero** Sugar Company (which presumably supplies it to its **large** estate and factory workforce). The manager of the Morogoro Regional Cooperative Union reported that food crop purchases had fallen from 3.4 million kg. in **1988/89** to 0.7 million kg. in **1992/3**, and that the union's staff had shrunk from 300 to 250 employees with a **further** 100 slated to be laid off.

Even the weakest of the unions appeared to be holding onto life, however, with a dose of **government** assistance probably critical in **all** cases. Numerous reports had indicated that "many, if **not** most, of the ... cooperative unions are technically bankrupt" and there were rumors that some would be wound **up**.²³ For example, in 1992, the accounting firm of **Coopers** and Lybrand was asked by the **Tanzanian** Commissioner for Cooperatives to study the prospects and make recommendations regarding the disposition of seven regional cooperative unions in western cotton growing regions of the country. The report concluded that an attempt should be made to salvage three of the unions, only, and that of these, two should have new

23. World Bank, 1991, p. 70.

managements installed, including a top manager from overseas. Furthermore, the report argued that the status of the unions as cooperative societies was so dubious that the government should formalize their *de facto* nature as public companies, and should then move to transform them into private joint stock companies. Yet no steps had been taken as of late 1993 to liquidate any of the unions that the report had concluded were not viable. Ways in which the government helped unions to survive included, in some cases, designating them as agents to purchase grain for the strategic grain reserve, or **asking export crop boards or barks to advance unions money for crop purchases when** existing debts meant a union would not otherwise receive a loan. By mid-1993, government decisions on the disposition of unpaid debts tended to absolve the unions of responsibility for all but a small fraction of **these**.²⁴

Indeed, managers of some of the stronger unions appeared to have adopted aggressive postures and hopes of expanding activities. This was true of all of the coffee purchasing unions I visited in 1993, including the Kilimanjaro Native Cooperative Union (KNCU), the Arusha Cooperative Union (ACU), and the Mbinga Cooperative Union (MBICU). The latter union was engaged in an ambitious program of hotel construction in its district headquarter town. Officials at ACU stated that its staff had not been reduced despite a contraction of the union's activities. Their thinking, they said, was that they did not need to reduce **their** size but rather should expand to other activities, such as processing of animal feeds. Union leaders admitted

24. For example, managers of NJOLUMA said they expected the government to accept responsibility for about 90% of that union's unpaid overdraft. The general manager of Ruvuma Cooperative Union reported that the government had removed all but TSh 500 million of its TSh 2.7 billion debt. The Morogoro Cooperative Union was **left** responsible for TSh 100 million of a TSh 2.3 billion overdraft. These decisions may **have** been fair, since the government caused a great deal of debt to be generated by ordering unions to undertake activities that turned out to be unprofitable. But it is almost impossible to divide responsibility between union mismanagement or corruption, on the one hand, and government intervention, on the other. The substantial removal of old debts may accordingly be viewed as **an** indication of a continuing political desire to keep the unions alive.

that it would be difficult for the unions to compete with private coffee buyers, should the latter be allowed to operate, since the unions still had to cover outstanding debts with deductions from coffee proceeds. But in January, 1993, both ACU and KNCU managers doubted that it would be politically possible for the government to legalize private trade in coffee, pointing to strong support for the unions and opposition to private trade in the Parliament. Contrary to these forecasts, the government moved to legalize trade in coffee **and** other export crops in August, 1993, but how quickly private participants would enter the market remained to be seen, however.

3. Radical Reform in the Foodcrop Sector

Although the quasi-public monopoly over trade in traditional export crops had survived well into the 1990s, domination of the trade in food crops by the **once-**powerful National Milling Company was already a dim memory by that time. In the late 1970s, **Tanzania** had embarked on the traditional socialist **path of having a state** monopoly purchase grain and edible oils from farmers and ration the milled products at controlled prices to urban consumers. But the country proved unable to adequately administer this program.²⁵ In the late 1970s, an average of over 46% of the grain purchased by N.M.C. was sent to Dar es Salaam, leaving such areas as Mbeya, Morogoro, and Mwanza dependent on parallel markets for 70 to 80% of their **needs**.²⁶ As illegal trade grew and the costs of N.M.C. procurement from remote southern regions **escalated**, the country also turned increasingly to imports. In the 1980/81 to 1982/83 marketing years, total N.M.C. purchases averaged only 88 thousand tons of

25. Tanzania's shift toward an extractive, industry-focused and state-centered approach to development, in the late 1970s, aped the traditional Soviet model and latter-day followers in China and Eastern **Europe**, contrary to the more agrarian **non-Marxist** socialism espoused by Nyerere in the 1960s. Why this approach failed to yield even the basic developmental dividends garnered by, e.g., the Soviet Union and China in earlier decades, is explored in **Putterman, 1991**.

26. **Keeler, et al.**, 1982, pp. 74-6.

maize, while sales averaged 263 thousand, of which 133 were in the Dar es Salaam/Coast region. Meanwhile, Tanzania imported 251 thousand tons of maize in 1980, 155 thousand in 1981, and 133 thousand in 1982.

In the early years of rationing, lines would form when supplies of sugar or other scarce items arrived at distribution points, and leaders of Party cells used their power over the distribution of these goods as a means of controlling and extracting favors from neighborhood residents or co-workers. However, as official supplies became less reliable, consumers turned increasingly to private suppliers. At first, the latter operated **strictly illegally, and were repeatedly attacked in government pronouncements as** "economic saboteurs." By 1986, however, private wholesale trade in grains was openly sanctioned by national leaders, and soon afterwards, private traders were legally permitted to buy grain from cooperatives, although not directly from farmers. Official legalization of private purchases from farmers came in 1989, by which time the public supply of food staples at controlled prices had effectively ended in Tanzania's towns. Subsidized grain supply disappeared without a public uproar because the system had become irrelevant to urban residents by the time of its formal removal.

Why state control over trade in food crops was ended while that over traditional **export** crops continued is an interesting question of political-economy for which some tentative answers might be offered here. A first factor requiring mention is the relative magnitude of the financial losses associated with state monopoly. N.M.C.'s cumulative debt to the state-owned **banks** had reached TSh 2.3 billion in 1981, and 88% of the subsidies allocated to agricultural **parastatals** between 1978/79 and 1983/84 went to N.M.C.²⁷ The grain monopoly had become a financial black hole, an operation encouraging high-cost producers to produce a climatically risky crop for a

27. Bryceson, 1993, p. 78.

guaranteed buyer whose internal accounts went unaudited over long periods, inviting massive waste and fraud. The public as beneficiary was poorly served and hence put up little resistance to the system's demise.²⁸ Farmers in most regions already sold most of their crop to private traders. In the context of Tanzania's overall economic crisis, the enormity of the **N.M.C.'s** losses was simply too great to permit the managers of that body, who were the main beneficiaries of its monopoly, to stave off pressures for **reform**.

The response of producers and traders to liberalization in the food crop sector has been viewed favorably by analysts in Tanzania's Marketing Development Bureau and the World Bank.²⁹ Estimated production of maize rose from 2013 tons in 1984/85 to at least 2200 tons in 1985/86 and over 2500 tons in 1988/89 (Figure 2), while imports correspondingly fell from 107 tons in the first year to a rare net export position in the last one.³⁰ Production of wheat and rice also grew. As of 1993, however, trading at village level was **often** of an irregular and small-scale nature, with some danger of trader monopsony in remote areas. The effects of liberalization were differentially felt by producers in different locations. And the absorptive capacity of

28. In fact, Bryceson characterizes support for private trade by then Prime Minister Salim A. Salim and President Mwinyi as highly popular with Dar es Salaam's residents.

29. Marketing Development Bureau, 1992, p. 14; attributes increasing maize production to "the liberalization of foodgrain marketing which has brought somewhat improved prices to farmers in some areas and improved market access to almost everyone," along with increased availability of consumer goods and relatively good weather. A similar analysis is provided by the World Bank, 1991.

30. Marketing Development Bureau 1992 provides both Crop Monitoring and Early Warning Bureau and Ministry of Agriculture Statistics Unit estimates of total output, which differ significantly especially for 1985/86 and for 1988/89. The MDB argues that its own evidence from market price monitoring suggests that the sharp peak in maize production in 1988/89 Crop Monitoring Bureau figures did not occur. Figures in the text are the minimum of the two series, for the years just referred to, while Figure 1 follows the Statistics Unit series after 1971/72. The exporting of grain surpluses following the 1988/89 harvest, while perhaps an omen of Tanzania's ability to help feed its neighbors (see below), actually cost the government heavily, because purchase prices exceeded those of the external market at the then prevailing exchange rate.

the national market still posed a constraint to farmers' productive potential. Gram production failed to rise after 1989, and 1992/93 output was down to an estimated 2282 tons.³¹

The marketing chain for such staples as maize and red beans typically began with a few members of one's own or neighboring villages purchasing small quantities directly at the **farmstead**.³² Where competition between traders was not keen, farmers had to transport their crops to district or divisional markets, usually within fifteen to twenty kilometers from their villages, to obtain better prices. For all except the wealthier farmers, the transportation problem was a serious one, since very few owned motorized or even animal-powered means of transportation and rental from those who did was expensive. Some officials expressed concern that the sale of crops at the farmstead not only increased the buyer's monopsony power but also deprived local governments of a revenue source in the form of a tax on market transactions. The **proposed solution of** limiting legal sales to designated centers seemed unlikely to be enforceable. Although limited competition in some localities may be a natural result of their isolation and of the condition of the road network (see Section 2), the nonemergence of larger-scale long-distance gram trade may also reflect continued uncertainty regarding government policies. As such, more large-scale private trade **may emerge as** the government demonstrates its commitment to liberalization by freeing trade in other crops and removing support from the cooperatives.

31. Tanzania Food Security Bulletin No. 6.93, Dar es Salaam, July 1993.

32. This statement may be misleading in one important respect, however. In many areas, villagization had left farmers with some plots in valleys two or more kilometers from the village site in which they kept their permanent home and may have been allocated a less ample field. Since the villages were most often located on the ridges traversed by district-maintained rural roads, it was more convenient for traders to buy there, so many farmers had to carry their crops by foot to the village site, whether for sale or for household consumption. Based on author's interviews and Ministry of **Communications and Transport, 1993. For more on villagization and the rural transport situation**, see Putter-man, 1994, and sources cited there.

The pan-territorial pricing of the late 1970s and 1980s, and even the simple premium price differential of the mid-'80s,³³ had meant that villages and regions that were relatively remote from the main markets for their products might find sales to the official channels attractive at the same time as better situated villages and regions sought to evade legal controls and sell to private traders. Indeed, Marketing Development Bureau estimates for the period from June 1988 to May 1989 show the ratio of the average open market producer price to the official price of maize in that period being as high as 2.4: 1 in Musoma, 1.7:1 in Morogoro, and 1.5:1 in Arusha, but only 0.79: 1 and 0.69: 1 in Ruvuma's Mbinga District and Rukwa's Sumbawanga.³⁴ The supply of chemical fertilizer and other purchased inputs was also linked to crop purchases, because the supplier could deduct the territorially uniform input cost from the crop purchase price at the time of purchase. Thus, the pattern of official input sales and crop purchases shifted over time in favor of regions less well situated with respect to the market. Where Ruvuma and Rukwa had provided 0.8 and 7.2% of N.M.C. maize purchases in 1973/74 and 1974/75, respectively, they accounted for an average of 35.1% of purchases during 1981/82 to 1988/89. For the "Big Four" southwestern regions combined, the shares are 13.4% and 12.0% in the earlier years, and an average of 73.3 % during the later period.³⁵

33. A Marketing Development Bureau study cited by the World Bank, 1982, shows that average maize purchasing prices for the N.M.C. itself varied from 0.44 TSh per kg. in Ruvuma to 0.98 in Kilimanjaro to 1.32 in Mara, and similar open market price differences were found in the late 1980s. With each locality receiving one of only two prices, the premium system could not have fully reflected differences in supply and procurement costs.

34. Marketing Development Bureau, 1989, p. 26. Note that the open market/official price gap can be considered to be exaggerated by giving an equal weight to prices in all months, since more of the harvest is sold (especially by poorer farmers) during the harvest season. However, monthly data in the same source indicate that the market price rarely fell below the official one in most locales.

35. That is, including also Iringa and Mbeya. 1970s data from Bryceson, 1993, pp. 233-4. 1980s data from Marketing Development Bureau, 1989, p. 58.

My interviews in 1993 suggest that richer farmers and farmers in regions of greater accessibility to national markets were relatively satisfied with their marketing conditions, while poor farmers and especially those in the more remote regions were unhappy with the system. For example, relatively rich farmers in **Arusha** region's **Arumeru** district and in **Kilimanjaro** region's **Hai** district indicated that they had a considerable choice of outlets for their crops, had good information regarding the prices prevailing in each outlet, and sometimes hired trucks to transport their crops to the most advantageous markets. Farmers near Iringa town and in villages within 40 kilometers of Njombe town in Iringa region also appeared relatively satisfied with their market options. By contrast, farmers in **Ruvuma** region's Songea district said they were holding onto grain stocks because the prices offered by traders were too low. Because Songea is 266 kilometers further from the main route to Dar es Salaam than is Njombe, because the area between is relatively barren, and because Ruvuma lacks market outlets to other centers, traders naturally offer lower prices at Songea than at Njombe, explaining why pan-territorial pricing is missed **here**.³⁶ Songea village leaders complained that the appearance of traders at villages was as unpredictable as the rains, and that traders purchased by the bag using bags **accomodating** 120 kilograms instead of the standard 100. As will be discussed below, phasing out of the distribution of fertilizer at subsidized prices which had helped Ruvuma to become a major grain surplus area in the 1980s also hurt the region's farmers. Although there are reports of increasing supply of Dar es Salaam from more proximate Morogoro and Dodoma regions, gross output estimates still fail to show any shifting of overall maize

36. Villagers in two villages located near regional roads within 60 kilometers of Songea reported that maize was purchased by traders for **TSh** 2100 to 2200 per bag in **1991/92**. Farmers in villagers comparably situated with respect to Iringa town reported prices in the same year beginning at **TSh** 3000 per bag. This accords with the **M.D.B.'s** figures for **1988/89**, when open market producer prices were reported to average **1036 TSh** per bag in Iringa, **915 TSh** per bag in Songea, and an abysmal **643 Tsh** per bag in the still more remote Mbinga town some 90 km. west of Songea (Marketing Development Bureau, 1989, p. 26).

production away from the four southwestern regions of Iringa, Mbeya, Ruvuma, and Rukwa.³⁷

Even without substantial large-scale trade or organized wholesale markets, there are signs of increasing market integration within mainland Tanzania. Data on retail prices of maize in eleven towns (each of which is also a regional center) were used to compute simple correlation coefficients for monthly observations covering eight three year periods running from 1983-85 to 1990-92, and two four year periods: 1985-88 and 1989-92.³⁸ Correlations were computed between the contemporaneous prices in pairs of towns that in most cases are either geographically proximate or are linked by a major transportation route. As shown in the lower part of Table 1, the four year correlations are uniformly higher in the later period, when eleven of thirteen correlation coefficients are greater than .9. The average correlation rises from .715 in the earlier period to .920 in the later one. This suggests that the various markets have become more integrated over time, a sign of the success of market liberalization as well, perhaps, as of improvements in the transport sector.

Looking more closely at the table, we find high price correlations, in the later period especially, between the Dar es Salaam market and towns (Morogoro, Iringa,

37. The combined estimated output of these four regions was just below 50% of the national total in 1985/6 and 1986/7, and returned to that level in 1992/93 after first falling below and then rising above that level. The output shares of the two more remote regions of Rukwa and Ruvuma actually rose between 1988/89 and 1991/92, although they showed no appreciable long-term trend (e.g., their combined share was a little over 20% both in 1986/87 and in 1991/92). The estimated combined output share for Dodoma and Morogoro appears to fall slightly between the mid-1980s and 1992/93, suggesting that any increase in marketed share to Dar es Salaam may have been compensated by imports from neighboring regions. Based on data in Marketing Development Bureau, 1992 and Tanzania Food Security Bulletin No. 6.93, cited above.

38. These data and comparable ones for other major traded crops and towns are regularly collected by the Marketing Development Bureau, and were provided to the author by the Bureau in machine-readable form.

Mbeya) on the TANZAM highway and on the connecting roads to Sumbawanga (Rukwa region) and Songea (Ruvuma region). There is a high correlation between prices in the adjacent towns of Arusha and Moshi and the towns of Iringa and Songea, linked by an important highway, whereas there is a lower correlation between prices in Arusha and Mwanza, which are linked by an all-weather but unpaved route spanning 826 kilometers. Less expected are the strong correlations between prices in the relatively isolated southern coastal town of Mtwara and both Dar es Salaam, 589 kilometers up the coast, and Songea, 678 kilometers into the interior. These last two correlations could be taken as evidence that coastal trade, and perhaps also movement along the poorly maintained road connecting the southern regions, performs a more effective arbitrage function than might have been expected. Correlations of monthly data over shorter, three year periods, also shown in the table, are more volatile, however, and in the periods centered on 1989 and 1991, these correlations are much lower for Mtwara-Dar es Salaam and Mtwara-Songea, more consistent with expectation. The overall trend in the three year correlations is nonetheless consistent with the conclusion of increasing market integration over time.³⁹

Regional price differences and the pattern of market prices following liberalization suggest that limited development of the international market for Tanzania's gram may be an obstacle to the transition of the sector from recovery to sustained growth. Analysts point out that most of the country's population and its more favorable growing areas are located near its perimeters, making food self-sufficiency a

39. Computation of correlations based on the maximum (if no values are missing) of twelve pairs of observations in a single year produced numerous negative values, suggesting that computation for longer periods is more sensible. Consistent with this interpretation, negative correlations were found only for 1983-85 and 1984-86 in computations using three years of data. Choice of the period duration is inevitably arbitrary, however. Note that the upward trend in correlation coefficients in 1989-92 versus 1985-88 is consistent with results reported for 1986-89 versus 1982-85 by Bryceson, 1993 (pp. 96-7, 146-7, 242, 271, 300, 302). See the sources cited by her (on p. 97) for earlier correlation studies of market integration in Ghana and Nigeria.

costly approach. Rather than shipping rice the over 1200 kilometers from the interior Rukwa region to the Indian Ocean port of Dar es Salaam, they argue, that city could be supplied more cheaply by imports, while Rukwa's rice could be shipped to the neighboring land-locked nations of Zambia and Zaire. A related and equally fundamental issue is whether Tanzania's aggregate grain output could expand if international markets were exploited. Tanzania has one of the most favorable balances of land to population in Africa, includes areas of reasonably high fertility, and is somewhat less susceptible to drought than some neighbors. To date, however, the government has not promoted the grain trade, for fear of compromising domestic food security. Thus, licenses to export must be obtained from regional authorities, although illegal cross-border trade may be substantial in some areas.⁴⁰ Liberalization has not been a boon to producer prices, which have shown substantial declines following good harvests.⁴¹ This is especially worrisome in view of the World Bank's conclusion that agricultural growth between 1983 and 1990 was "a one-time phenomenon associated with a return to a market clearing situation in the rural economy that cannot be expected to sustain growth in the 1990s" (1991, p. 74). One must conclude that Tanzania's desire to make cheap food available to the domestic consumer is in conflict with the potential to expand production, which might be achieved with modest public assistance to develop the infrastructure of cross-border trade.

4. Traditional Export Crops: Reform Delayed

40. A food crop expert at the Ministry of Agriculture's Marketing Development Bureau privately estimated that "at least 40,000 tons of maize, rice, and beans" are illegally moved from western Tanzania into Zaire and Zambia each year. (Interview, 9/23/93.) In 1988/89 however, the average open market grain price in Rukwa's Sumbawanga town was the lowest of those listed by the M.D.B., at 563 TSh per bag versus a national average of 1287 (Marketing Development Bureau 1989, p. 26).

41. For example, as estimated national production rose from 1712 metric tons in 1983/84 to 2528 tons in 1988/89, the average maize price in contant 1989 shillings fell from 48 to 26 shillings per kg. With output down to 2111 tons in 1991/92, average price was 40 shillings per kg. Marketing Development Bureau, 1992, pp. 13 and 32.

As indicated above, reform has made the least headway in the realm of the traditional export crops, of which those produced by small-holders are cashews, coffee, cotton, pyrethrum, tea, and tobacco. Control of the trade from purchase at village level to sale to foreign buyer, at first monopolized by **parastatal** authorities, was revamped only to the extent that cooperative unions purchased crops at the villages before selling to the latter entities. Since the cooperatives were themselves quasi-public bodies, this created an extra layer of bureaucracy with no increment in competition.

Devaluation of the Tanzanian shilling, which accelerated in the late 1980s, offered hope of stimulating exports, since the producer conventionally received a portion of the *official* purchase price. The Shilling, which stood at 7.1 to the dollar in 1970 and 8.2 to the dollar in 1980, reached 32.7 to the dollar in 1986, 99.3 to the dollar in 1988, and 195 to the dollar in 1990. However, whereas the producer share of official export value had reached more than 100% for cotton, tobacco, and **arabica** coffee in 1985/86 (see above), these shares declined to **34%**, 38 % , and 60 % , respectively, in 1989/90.⁴² Domestic inflation averaging over 30% a year, the impact of devaluation on input costs, unfavorable world market price trends, and reduced government capacity to subsidize input distribution also meant that there was for the most part no windfall to the producers of traditional **export** crops.

For example, **arabica** coffee, one of Tanzania's main foreign exchange earners, sustained a sharp decline in world market price following the collapse of the International Coffee Agreement in 1988. Prices averaged around \$4,000 to \$5,000 per ton during 1980-1986 but had reached \$1291 per ton in 1992. Even though Tanzania's

42. Marketing Development Bureau, 1990, p. 26. The share had reached 40% for **arabica** coffee in 1988/89 before recovering to the figure reported in the text.

coffee farmers were paid an unsustainable 97% of the world market price in 1992 compared with just 38% in 1989, they received an almost identical shilling price in the two years (TSh 294 versus TSh 295 per kg.) The country's recorded **arabica** production hovered around 35,000 tons during **1989/90-1992/3**, almost the same figure as had been achieved in 1972 and down from peaks of 52,000 tons in **1980/81** and 44,000 tons in **1988/89**. Total coffee production (including also **robusta** coffee) stood at about 54,000 tons during **1989/90-1992/3**, compared with nearly 62,000 tons in **1980/81** and nearly 60,000 tons in **1988/89**.⁴³ Export earnings dropped from US \$185 million in 1986 to only \$77 million in 1991. Resigned to seeing horticultural crops continue to attract **energies** from coffee production, in the traditional northern growing area and despairing at the world price outlook for the northwest's **robusta** crop, the industry's boosters looked to the south for its future.

By contrast to coffee, cotton, a perennial crop grown mostly in the semi-arid **regions south of Lake Victoria, responded well to a generally improving incentive** environment. Average world market prices fell only a little between 1985 and 1991 before recording a sharper drop in 1992. Despite the decline in the producers' share of the official export price, rising official exchange rates raised the producer price from about TSh 5.7 per kg. of seed cotton in the earlier period to TSh 41 per kg. in **1990/91** and 70 per kg. in **1991/92**. Total cotton exports, which reached a little over 50,000 tons in **1989/90**, recovered from 20,440 tons in **1984/85** to 61,598 tons in **1988/89**, declined again, but recovered to 56,473 tons in **1991/92**, when cotton surpassed coffee as the country's number one export crop.

Unfortunately, cotton was the only one of Tanzania's major smallholder export crops to experience a favorable price trend during this period (see Figure 4). Other

43. Based on data provided by the Marketing Development Bureau.

crops did show signs of modest recovery in the late 1980s and early 1990s, but probably more as a result of the increased availability of consumer (incentive) goods than of any other factor (see below). Tea production, which fell from 16,300 tons in 1980/81 to 13,800 tons in 1987/88, grew to 20,200 tons in 1989/90 and stood at 19,500 tons in 1991/92. Pyrethrum output fell from 2,000 tons in 1980/81 to 1,200 tons in 1986/87, then recovered to 2,200 tons in 1991/92. Cashew nut production, which suffered a precipitous decline from 57,200 tons in 1980/81 to only 16,500 tons in 1986/87, saw a gradual recovery to 34,600 tons in 1991/92. In tobacco, the trend was ambiguous, with a decline from 16,800 tons purchased in 1980/81 to only 11,800 tons in 1990/91, but a sudden jump to 17,000 tons in 1991/92.

For the smallholder exports as a group, mixed performance in output terms combined with generally unfavorable world prices to produce a decline in earnings. From U.S. \$256 million, or 74% of the country's total export earnings in 1986, these fell to \$196 million, or 54%, in 1992 (see Figure 5).⁴⁴

The early 1990s saw some tinkering with the export crop marketing system with little change in its efficiency. Following a series of studies on restructuring of the marketing boards in 1989, they were officially designated as selling agents of the crops, which would belong to the purchasing cooperative union (as of 1990) until transferred to the final (e.g., international) buyer. This reform, meant to restrict the responsibilities of the boards, had little effect, in part because the unions had only one possible "agent" through which to sell each crop, and thus no leverage with respect to the agent's commission or performance standards. Moreover, the tightening of bank credit which occurred just after this reform had a more dire effect on the unions than on the boards. In some cases, such as tobacco, boards made special arrangements to

44. Marketing Development Bureau, 1992, p. 40.

step in and purchase the crop for an insolvent union; in others, a union was able to continue purchasing only with special assistance from a board, turning the official agency relationship on its head.

Another dubious effort to redress past **malpractices** can be seen in attempts to raise the proportion of the world price that would be paid to the producer without reference to the costs incurred between the farm and the **final** market. These attempts would appear to have arisen in reaction to the findings, reported earlier, that the share going to transport, storage, processing, and other intermediate expenses had been growing at alarming rates. **Unfortunately**, such attempts to roll back expenses by **precommitment** to a favorable producer's share did not by themselves erase inefficiencies, and the caps were often listed in my conversations as another way in which the government had imposed losses beyond their own controls upon unions and marketing boards, in part because annual prices were announced long before post-season world prices could be known.

In response to timing problems of the type just mentioned, the decision was made to refrain from announcing official prices prior to the agricultural season. But given the realities of the local institutional environment, this too turned out to be an ill-considered (or at least poorly implemented) move. Instead of announcing a **fixed** price, it was proposed, only an "indicative price" would be circulated, a guess at the *ex post* price which could be used for planning purposes by both farmers and marketing organizations. Not surprisingly, the subtle distinction between an administratively fixed and an indicative price was often lost on the relevant Tanzanian actors. For example, **in the 1991/92 season, the President went** against the advice of the Ministry of Agriculture and announced to farmers that they would receive **TSh 94** per kg. of cotton. The season saw a bumper harvest but with world prices lower than expected

and the cotton-buying unions in financial crisis, the unions were generally unable to pay even the TSh 60 per kg. ultimately recommended by the government, leaving cotton farmers so disgruntled that the 1992/3 crop was expected to decline by over 50%.⁴⁵

Another problem which agricultural policy-makers hoped to address, but made few inroads into, were the significant and analytically interesting quality problems which afflicted a number of crops including the **leading** foreign exchange earners, cotton and coffee. By the 1990s, once esteemed Tanzanian coffee was earning uniformly low prices in international auctions, and it was explained by experts associated with the European Community-funded Coffee Quality Project that this was due to the fact that primary societies had gotten in the habit of accepting bags of coffee beans delivered to them without regard to condition. Coffee's auction grade is especially influenced by whether the bean's outer skin is removed (called "pulping") **within 24 hours of picking it from the tree. The expectation that the society will not** separate early- from late-pulped coffee beans destroys the grower's incentive to make the strenuous efforts required by same-day **pulping**.⁴⁶ Similar problems at the ginnery level explained why, whereas Tanzania once enjoyed a high reputation for its medium long staple fiber, "the realized export price for cotton is declining relative to the

45. The account given here is based on discussions with sources in the unions, the Marketing Development Bureau, and the Dar es Salaam diplomatic community.

46. The problem is a complicated one because coffee beans cannot be accurately graded by sight, and quantities delivered by smallholder growers are too small to be separately sampled to assure each grower a price based on the quality of his own output. Broad quality distinctions can nevertheless be made at the delivery stage, and failure to do so in recent years reflected internal politics and declining management in the societies and the government extension service. Quality advisors hope that individual societies will divide delivered coffee into high and low-grade lots, and that the problem of motivating good within-group quality can be addressed by social pressure among neighbors. Interesting, E.C. advisors were excited by the fact that one superior lot of coffee had been delivered by a society in Ruvuma's Mbinga district in 1992/3, but growers had yet to see any difference due to the \$125 as opposed to \$75 per bag that this lot fetched at the auction, thanks to continued bickering between the regional cooperative union and its creditors. This is an illustration of the theme of the paragraph which follows.

average world market price, indicating that quality is not being maintained.” (Coopers & Lybrand, 1992, p. 27.)

One of the most damaging trends of the early 1990s was the impact of the precarious financial positions of cooperative unions on producers’ incentives. In theory, improving those incentives was a major aim of reforms in marketing, and forcing cooperatives to become more efficient was an obvious method of reform. Rather than improve the efficiency of marketing in the traditional cash crop sector, however, the changes in this period, and especially the financial crisis, hurt producers by making input supplies less reliable or unavailable on credit, and by weakening the ability of the buyers to pay remunerative prices. Many unions which had previously supplied fertilizer or agricultural chemicals to growers on credit, expecting the cost to be deducted from sales payments, found themselves unable to continue the practice due to backlogs of unpaid loans and to the tighter credit requirements now adopted by the banks. The requirement of **financing** input purchases with cash gave pause to many farmers given the inflationary environment, relatively low market prices, and the uncertain ability of the cooperatives to pay for the crops at the end of the season. Nor could the unions always obtain even the short-term credit with which to buy inputs for direct sale to farmers.

Ultimately, unions were forced to follow more conservative policies, advancing farmers only a safe fraction of potential proceeds as an initial payment, and promising to pay the residual after quality assessment and market conditions determined the actual sales price. The problem with this approach was that unions could not be sure of their ability to distribute any realized sales residual, because these revenues might be demanded by their creditors before they could be paid to primary society members. The unions, which were hoping to keep sellers from defecting to future private

competitors by means of their unique promise to share **final** sales proceeds, thus saw the credibility of that promise being undermined by their financial positions. To farmers, it appeared that the prices they were receiving for their crops had just been slashed, plain and simple.⁴⁷

A joint review of the agriculture sector by the World Bank and the Government of Tanzania underway in 1993 ranked problems facing the traditional export sector as the highest priority for action. The review concluded that exports such as coffee, cotton, and smallholder tea could not be produced profitably under current conditions, but it blamed the remaining 20% gap between the official and market exchange rates: “at ‘market clearing’ prices . . . all traditional exports . . . are profitable” it concluded. Complete decontrol of the exchange rate was in fact planned to take place by the end of 1993. Equally importantly, the government passed legislation in August 1993 that in principle allowed for competition between private market agents and cooperative and parastatal organizations. **To what degree real competition will ensue is the question of the day.**

5. The Incentive Effect of Consumer Goods Supply

Students of supply responses in African agriculture have frequently noted that alongside the producer price and its purchasing power in terms of the official prices of consumer goods and inputs, one would need to take into account whether and to what

47. According to the general manager of K.N.C.U., paying growers the government mandated price of TSh 230 per kg. of coffee in 1991/92 had caused that union to incur a substantial loss. The union would therefore make an advance payment of only TSh 155 per kg. in 1992/93. A.C.U. officials claimed their union had lost TSh 466 million due to the high price in the former season; it was offering only TSh 120 per kg. as a first payment in 1992/93. The resulting price competition between the neighboring unions was welcomed by market-oriented policy-makers.

degree the latter goods were available to producers. In a strict rationing situation, a farmer might be earning 1000 shillings from coffee sales, but be able to obtain only 800 shillings worth of goods he wishes to purchase. Raising the offer price for coffee could fail to stimulate production in such a situation.

Tanzania saw a severe shortage of basic consumer goods in the early 1980s; at the end of that decade, by contrast, availability of such goods had become the most noteworthy success in its reform program. Goods became unavailable when the country began strictly rationing its foreign exchange earnings, when the latter dwindled partly because of the lack of export incentives, and when the attempt to build domestic industrial capacity foundered due to shortage of spare parts, energy, and good management. Shortage was exacerbated as internal private commerce was restricted and preference was given to public trading companies and village shops. Protectionist and pro-public sector policies reserved limited foreign exchange earnings for capital goods and ~~other~~ priority imports, and saw the local business community transfer much of its wealth into foreign accounts.

The situation was quickly changed when the government permitted business people to import goods into the country using foreign funds of any origin, including money they had previously ~~shifted~~ abroad. Pent-up **demand** made it profitable to import a wide range of goods. A freer internal trade environment followed and, by 1990, Tanzania had become the most liberalized importer's environment in its region, with almost every kind of good available for a price. Poor Tanzanians benefited especially from the government's decision to permit the importation of second-hand clothing by the bale. Traders were attracted back into the country, profit margins fell,

and goods found their way out to regional and district centers and from there to the kiosks and small shops of villages throughout the country.⁴⁸

Evidence that shortages affected decisions to produce cash crops in Tanzania was sought by Bevan, Collier and Gunning (1989) in two sets of exercises. First, they estimated regressions with measures of consumer goods availability as independent variables and real value of cash crop output as dependent variable using a panel of annual data from seventeen regions covering the years 1975/76 to 1985/86. Second, using data on 500 rural households collected in four regions covering the years 1976/77 and 1982/83, they estimated regressions with (first differenced) cash income as dependent variable and expenditure on official markets as independent variable. They found support for their hypotheses in both cases: in the region-level panel data, lagged measures of goods availability have significant positive coefficients in the regressions on cash crop output; in the household-level data, expenditure on the official market (which should be declining with the severity of rationing) is negatively (although only for two regions significantly) correlated with cash income.

Bevan et al. consider the episodes of rationing to which they refer as having at least temporarily ended in Tanzania in 1986. With rationing ended, the argument for including goods supply in the producers' output supply response function is no longer operative. Nevertheless, the period of shortages was still memorable for rural Tanzanians whom I interviewed in 1993. When asked to identify ways in which government policies had benefited or harmed them in recent years, village leaders routinely stated that the easing of restrictions on internal trade and importing of

48. Tanzania moved so far from its earlier policies as a protector of domestic manufacturing that its government met with heavy criticism from local private industrialists who felt domestic production possibilities were being scuttled. See the Tanzania Special issue of Executive ("Kenya's Premier Business Journal"), August 1993.

consumer goods had made it much easier for local residents to obtain their needs. Importation of second-hand clothing was often singled out as a major factor raising the quality of life of ordinary rural people. Respondents generally reported that all of the goods they wished to buy were readily available, although prices had become very high relative to many people's purchasing power. The purchase price of daily necessities, the cost of medicine, and the cost of school fees and uniforms, were frequently mentioned as reasons why it was difficult for a farmer to save money with which to purchase farm inputs. While indeed discouraging from the standpoint of absolute welfare, such statements suggest that the motivation for raising cash earnings was no longer a problem in its own right by the early 1990s in Tanzania.

6. Conclusion

This paper has reviewed the background and progress of a decade of gradual movement from state monopoly to free trade in Tanzania's agriculture. We have seen that the scope of reform has ranged from the extremely limited and hesitant changes in traditional export crop markets to near total liberalization in the food crop and consumer goods sectors, with cooperatives and input supplies standing some place in between. Where liberalization has been most thorough, it has stemmed state losses but had only a modest stimulative effect on production. Liberalization may have reversed agriculture's decline, but by itself it has proven insufficient to spur much growth in the sector.

Recreating a cooperative marketing system only eight years after its predecessor had been shut down by the government was a first major step in the reform process. The old cooperatives, politically independent of the government and ideologically

questionable **because** a tool of private farmers, had **been** swept away in favor of **parastatal** purchasing monopolies. The new administrative villages had been designated to take on the functions of primary societies, along with their production and social service roles. The decision to revive cooperatives was thus a step back from an increasingly rigid form of socialism and centralization.

While ostensibly less centralized, given their regional level, and while **nominally servants** of the village societies, the recreated unions nevertheless remained effectively public entities, supported by state credit, responsive to state policies, and under no meaningful oversight from the farmers. Lacking a **grass roots** base and **any** real independence from the government, the manner of their reintroduction betrayed the depth of official ambivalence about markets and decentralization.

When the volume of officially marketed food crops plummeted and public debt mushroomed under the N.M.C. monopoly, top leaders faced up to the state's inability to singlehandedly feed me towns. Step by step, **they** de-criminalized private trading. Estimated gram output rose up to 1988, but the trend into the early 1990s was not particularly encouraging.

Several factors inhibited growth of grain production. The country's cultivated land was losing its fertility due to repeated farming without replenishment of soil nutrients. Limited and localized use of fertilizer, promoted in earlier government campaigns, was threatened **by the collapse of institutional credit and by the removal of subsidies**. Growth in the use of improved seeds, formerly hampered by the low quality and inefficient distribution of the state monopoly breeder (TANSEED), was now impeded by absence of credit. Finally, domestic markets appeared to be easily saturated, and official restrictions hampered growth of the export trade.

The effects of liberalization also varied by region and locality. Compared with the pre-reform regime of pan-territorial pricing, more remote locations now received less for their crops but paid more for their inputs, depressing production incentives and the capacity for input purchases. The effects of reform on local economic activity, and the degree of satisfaction with the changes, varied accordingly.

The single-channel system for marketing export crops saw little change during the decade in question. About the only bright spot here, aside from the growth of so-called "nontraditional" exports which have been outside the scope of this paper, was the inducement to cash crop production brought about by the return of (largely imported) consumer goods to the market. The existence of regional unions did nothing to reduce the monopoly character of crop marketing, and adjustment of crop authority responsibilities was of merely procedural importance. Even rapid and steep devaluation of the currency did not much help producers because of high marketing costs, unfavorable world markets, and escalating input prices. Declines in the quality of cotton and coffee, and disrepair and poor management of cotton ginning facilities, continued. Without revenue losses on the scale of those incurred by the N.M.C. to push reform to the fore, change came slowly. Competition was finally to be introduced at the end of 1993, but how much real competition would ensue and whether that would suffice to stimulate production (as it had *not* done in the food crop sector) were both open questions.

Donor dissatisfaction with the cooperatives and their contribution to fiscal imbalance led to a new round of cooperative reforms in the early 1990s. An official shift to a genuinely voluntary cooperative system had generated reform efforts at primary society level but change at the union level began more slowly. Most important at that level was the drastic constricting of credit lines from the public banks. This led to massive reduction of cooperative participation in the food crop sector, to difficulties

with financing the purchasing of food crops, and to the ending of most programs to supply inputs on credit. With the cooperatives still the only legal purchasers of cash crops in these years, their financial straits provided yet another reason for farmers to be wary of expanding production.

To some degree, the largely disappointing results of agricultural marketing reform could be attributed to deficiencies in policy and implementation. Tinkering with export marketing institutions had produced little noticeable benefit and more than one costly mistake. Policy miscalculation was evident, for example, in the unrealistic attempt to shift to indicative pricing. More devastating, however, was the unfortunate timing of the credit squeeze on the cooperatives, from the standpoint of producers' incentives.

Moreover, in the export crop as in the food crop sector, it is not clear that liberalization, the guiding principle of the reform, will necessarily produce growth of output, revenues, or quality. Depressed world market prices, **high** input costs, and high operating margins and limited competition among traders may mean that the producer is in no more profitable a position after than before liberalization. Reducing government's marketing role may thus be a recipe for cutting its financial losses, but the hope that it will also bolster production incentives may be ill-founded.⁴⁹

What the evidence presented in this paper suggests is not so much that there is little prospect for improving the performance of **the** smallholder sector, but rather that such improvements cannot be expected to follow automatically from a withdrawal of government. As has been shown in other countries, there may be no substitute for a

49. This is not to say that **there** can be no relationship between liberalization and growth-promoting measures of the type to be mentioned presently. To the extent that reduction of misplaced government expenditures, such as those which supported pan-territorial pricing, can be refocused, the state's withdrawal from marketing may help make available the resources needed to implement them.

government role, not in marketing, but in such areas as research and extension, and in the improvement of infrastructure.⁵⁰ Government can help to monitor and promote crop quality, and it can assist self-help schemes both to improve rural roads and to render them less needed. Government participation, whether by subsidies, guarantees, or some other approach, may also be desirable with respect to the supply of inputs or the provision of small farmer credit. These and other steps may be particularly crucial for avoiding the type of outcome in which a handful of trader-farmers enrich themselves at the expense of an increasing **emiserized**, credit-starved peasant **class**.⁵¹ Finally, a thorough investigation of possibilities for promoting food crop exports while finding alternative means to secure the domestic food supply may be the key to lifting the lid on Tanzania's potential as a regional granary.

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50. See Timmer, ed., 1991, and Papanek, 1992.

51. For further comments on these distributive issues, see Putterman, 1994.

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Figure 11. Estimated Production of Major Cereals

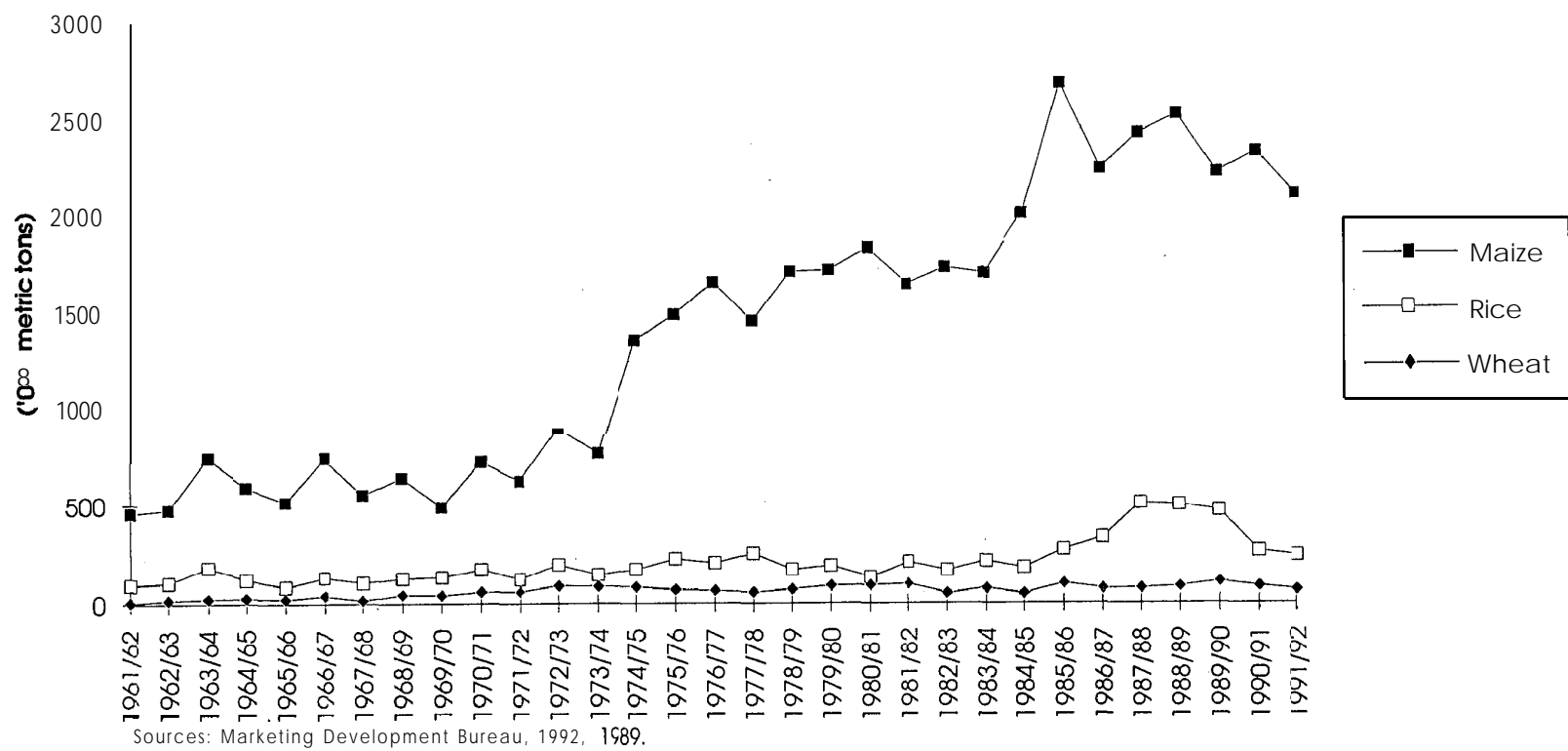


Figure 2. Government Purchases of Grain Crops

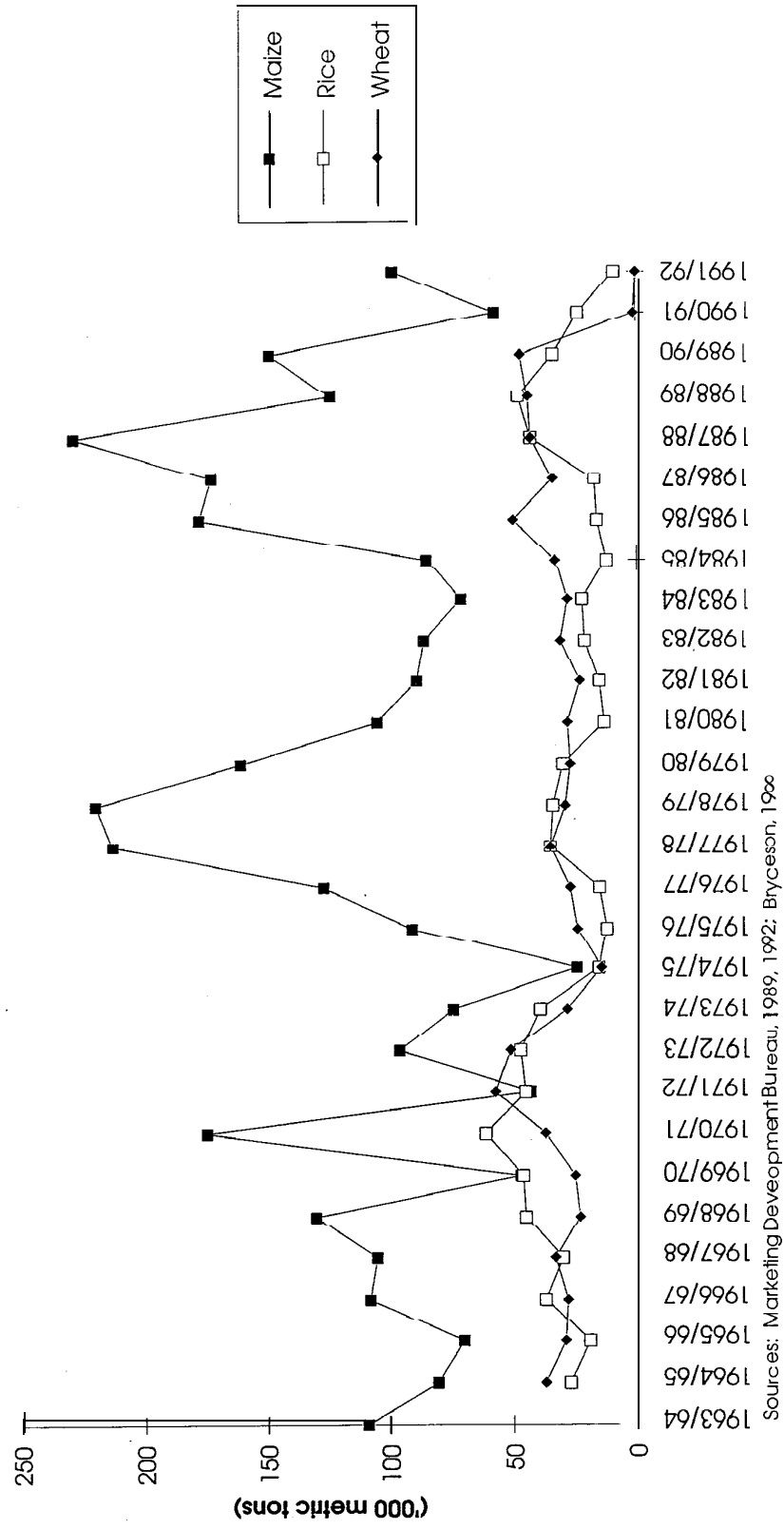


Figure 3. Production of Major Export Crops

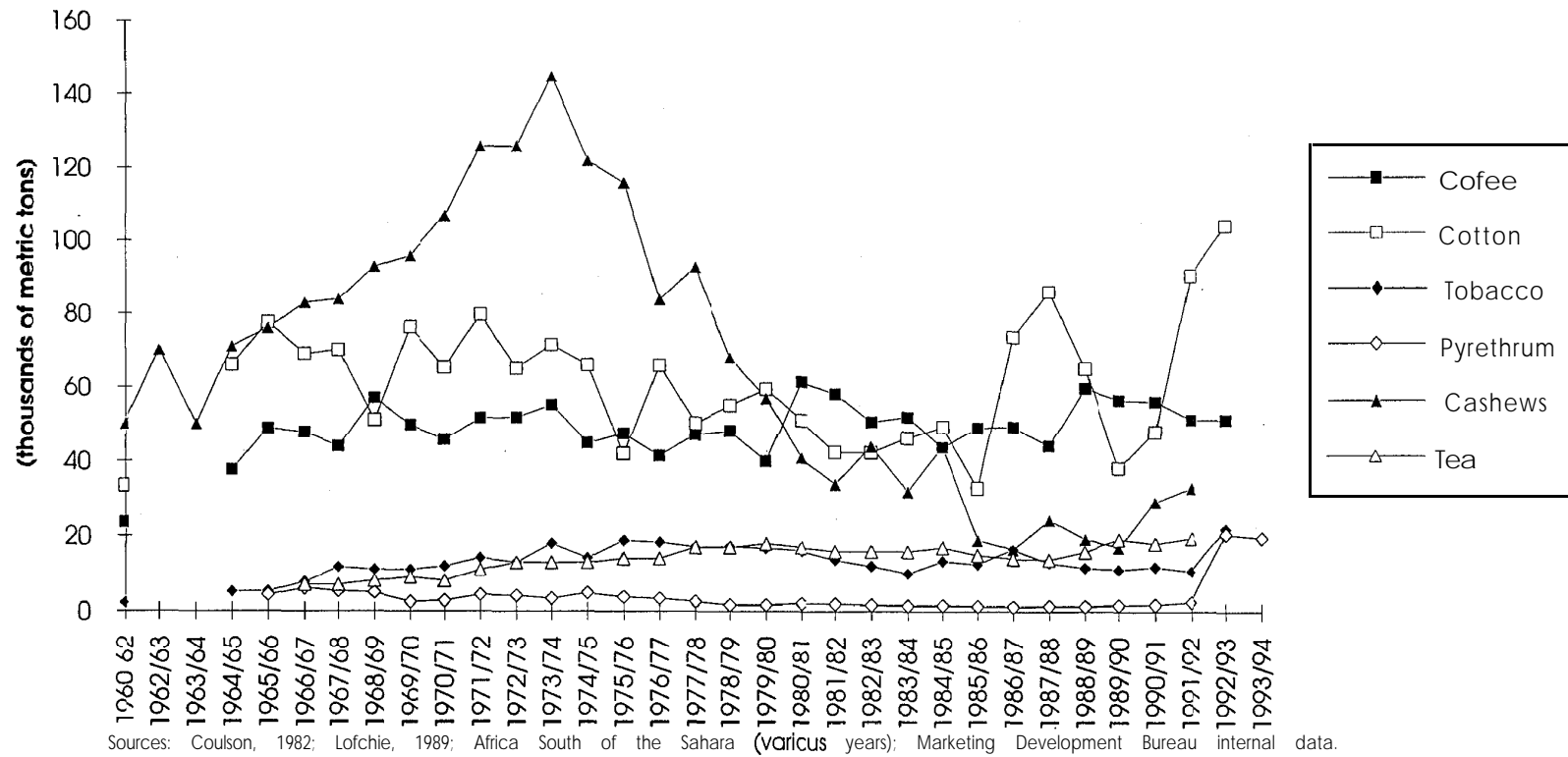
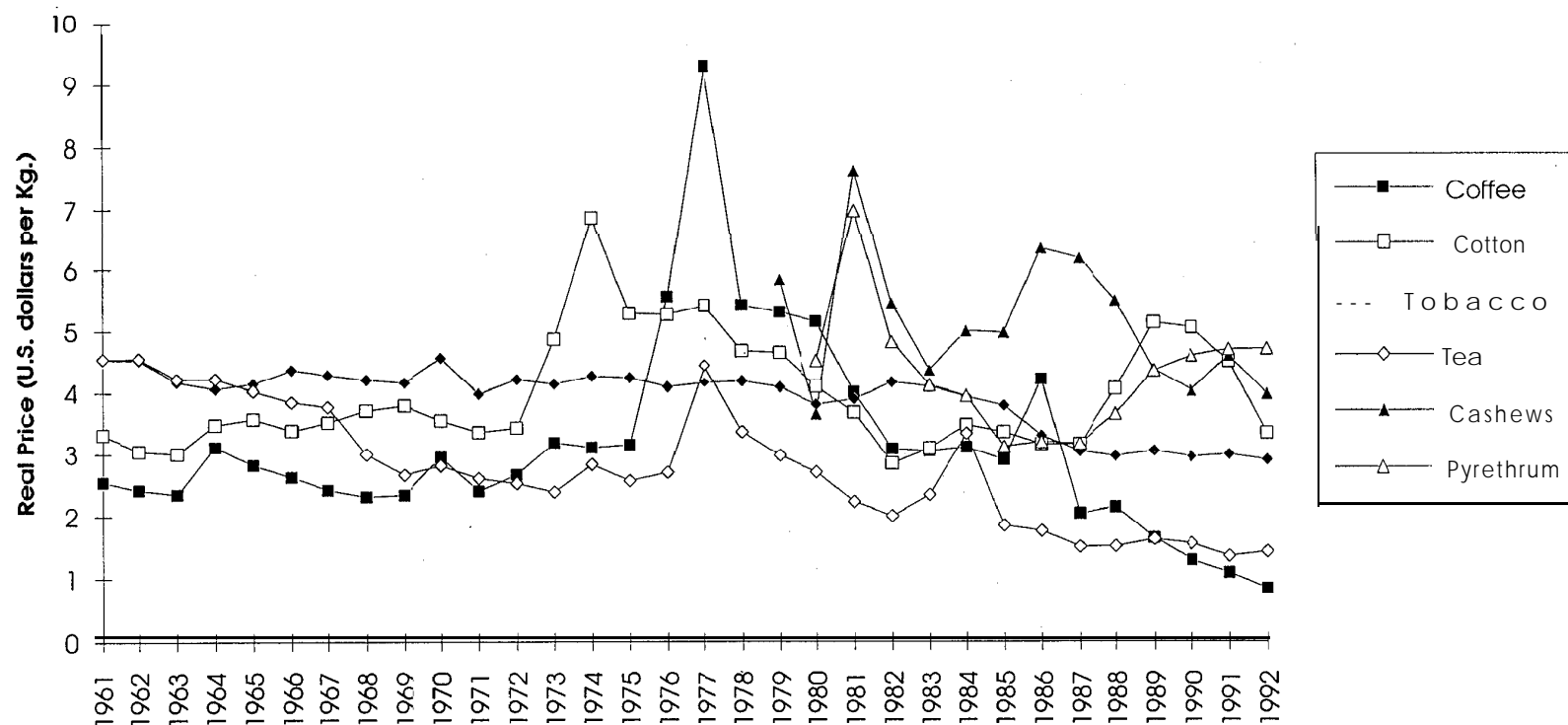
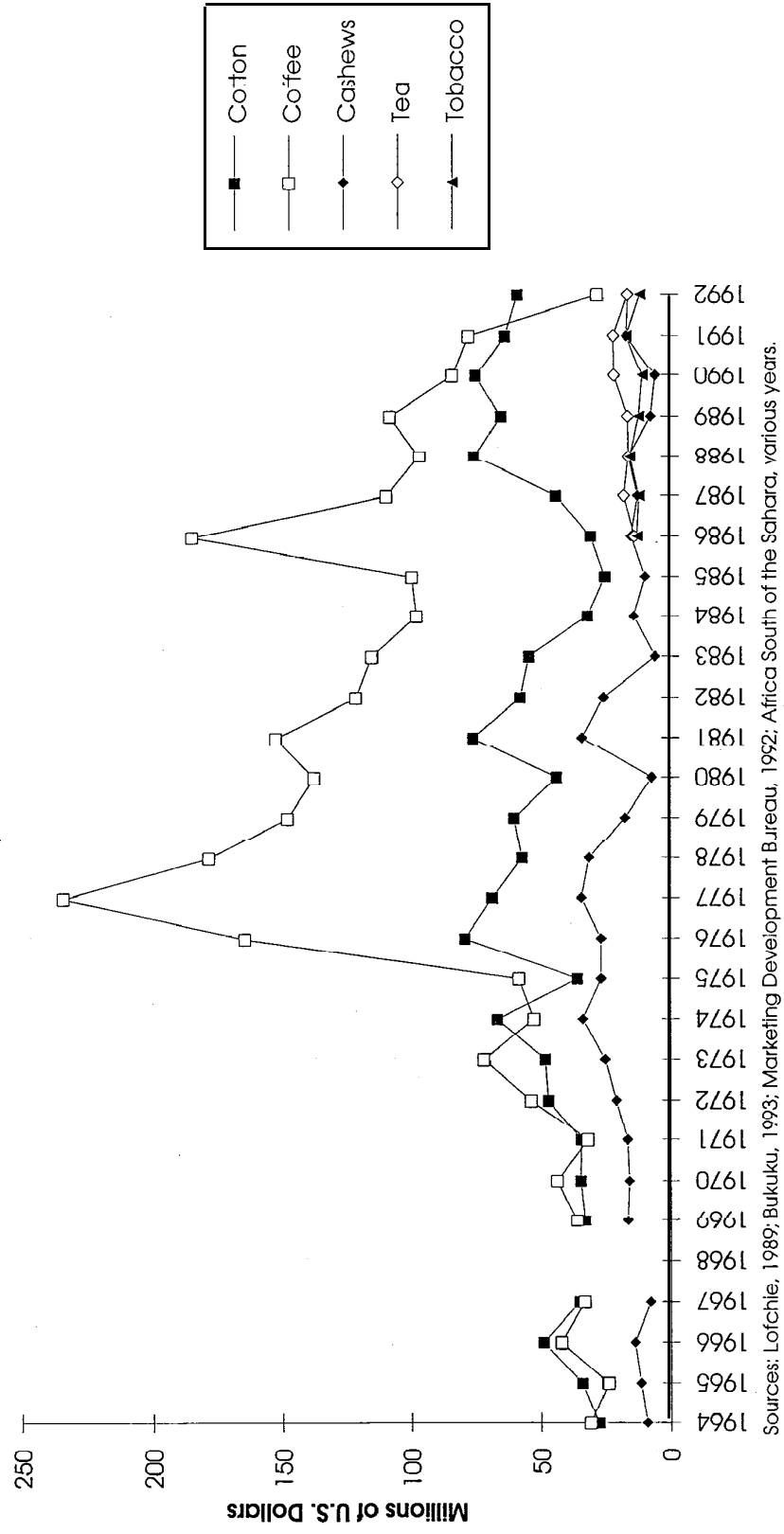


Figure 4. World Market Prices of Major Tanzanian Export Crops



Source: I.M.F. data deflated by U.S. Dept. of Labor, Bureau of Labor Statistics Consumer Price Index, 1982-84=100.

Figure 5. Value of Exports



The graph illustrates the percentage of total export earnings derived from specific commodities in Malawi from 1964 to 1991. The Y-axis represents the percentage (0-80%), and the X-axis represents the years. The legend identifies seven data series: Cotton (solid square), Coffee (open square), Cashews (solid diamond), Coff+Coff+Cash (open diamond), Tea (solid triangle), Tobacco (open triangle), and Coff+Coff+Cash+Tea+Tob (solid circle). The combined category (Coff+Coff+Cash+Tea+Tob) shows a significant increase in its share of earnings starting in the late 1980s, peaking at approximately 75% in 1991. Conversely, the share of earnings from individual commodities like Cotton and Coffee generally declined over the period.

Year	Cotton	Coffee	Cashews	Coff+Coff+Cash	Tea	Tobacco	Coff+Coff+Cash+Tea+Tob
1964	10	15	5	35	0	0	55
1965	12	18	8	38	0	0	58
1966	15	20	10	40	0	0	65
1967	18	22	12	42	0	0	72
1968	15	20	10	40	0	0	65
1969	12	18	8	38	0	0	58
1970	10	15	5	35	0	0	55
1971	12	18	8	38	0	0	58
1972	15	20	10	40	0	0	65
1973	18	22	12	42	0	0	72
1974	20	25	15	45	0	0	80
1975	22	28	18	48	0	0	88
1976	25	30	20	50	0	0	95
1977	28	32	22	52	0	0	102
1978	30	35	25	55	0	0	110
1979	32	38	28	58	0	0	118
1980	35	40	30	60	0	0	125
1981	38	42	32	62	0	0	132
1982	40	45	35	65	0	0	140
1983	42	48	38	68	0	0	148
1984	45	50	40	70	0	0	155
1985	48	52	42	72	0	0	162
1986	50	55	45	75	0	0	170
1987	52	58	48	78	0	0	178
1988	55	60	50	80	0	0	185
1989	58	62	52	82	0	0	192
1990	60	65	55	85	0	0	200
1991	62	68	58	88	0	0	208

Sources: Lofchie, 1989; Bruku, 1992; Marketing Development Bureau, 1992; Aica South of the Sahara, various years.

Table 1. Correlation Coefficients for monthly market price data.

Year	Aru-Mwa	Aru-Iri	Aru-Mbs	Dar-Mbr	Son-Iri	Iri-Dar	Son-Dar	Sum-Mbe	Sum-Dar	Mbe-Dar	Dod-Dar	Mtw-Dar	Mtw-Son
1983-85	0.645	0.894	0.921	-0.667	0.814	-0.135	-0.186	0.790	-0.424	-0.096	-0.798	-0.296	0.617
1984-86	0.358	0.421	0.810	0.553	0.599	0.758	0.656	0.656	0.171	0.802	-0.007	0.594	0.483
1985-87	0.295	0.139	0.459	0.539	0.489	0.439	0.686	0.384	0.455	0.689	0.183	0.706	0.735
1986-88	0.686	0.633	0.723	0.762	0.632	0.602	0.781	0.660	0.780	0.809	0.761	0.506	0.553
1987-89	0.469	0.630	0.772	0.793	0.752	0.694	0.843	0.414	0.615	0.672	0.790	0.630	0.570
1988-90	0.471	0.622	0.672	0.832	0.889	0.831	0.835	0.191	0.840	0.386	0.695	0.280	0.122
1989-91	0.752	0.963	0.970	0.976	0.964	0.970	0.948	0.467	0.046	0.801	0.982	0.980	0.978
1990-92	0.651	0.895	0.955	0.910	0.942	0.934	0.881	0.910	0.011	0.952	0.914	0.596	0.746
1985-88	0.666	0.612	0.676	0.722	0.758	0.728	0.823	0.689	0.679	0.838	0.639	0.727	0.735
1989-92	0.767	0.939	0.974	0.946	0.966	0.959	0.929	0.748	0.847	0.947	0.955	0.931	0.950

Table note: See text for method of computation and data source. Markets represented are Arusha, Mwanza, Iringa, Mshini, Dar es Salaam, Mbogoro, Songea, Sumbawanga, Mbeya, Dodoma, and Mtwara.